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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,413	06/07/2001	David sevack	GGD-104	7296

7590 12/01/2004
Mr. Anthony M. Lorusso
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EXAMINER

NGUYEN, LAM S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/876,413	SEVACK ET AL.	
	Examiner	Art Unit	
	LAM S NGUYEN	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Mandellos (US 5861633).

Referring to claim 1:

Mandellos discloses an ultra-violet lamp and reflector/shield assembly for a ventilation system (*FIG. 1 and column 10, lines 23-28*), comprising:

an extruded one-piece reflector/shield (*column 1, lines 51-61: "reflector surfaces formed either integrally on an extruded aluminum housing"*) provided with a generally parabolic inner surface and a generally convex outer surface (*FIG. 15, elements 18a-b, 76*); and

an ultra-violet lamp so mounted to said extruded one-piece reflector/shield that

(a) said inner surface of said reflector/shield reflects a portion of ultra-violet radiation emitted by said lamp (*FIG. 15 and column 8, line 42-43*); and

(b) said outer surface of said reflector/shield deflects air away from said ultraviolet lamp to avoid cooling of said lamp to increase irradiation efficiency of said lamp (*Fig. 15 and column 7, lines 50-58: The cooling air travels downwardly along the outer surface of the reflector and is exhausted through air orifices formed along the lower ends 87; in other words, the reflector deflects air away from reaching the lamp . Column 6, lines 61-65: The reflector*

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member 76 substantially prevents or avoids the cooling air from impinging the light energy source (the lamp) to cool the lamp. Therefore, the cooling air is not intentionally used for cooling the lamp, but for the reflector only).

Referring to claim 2: wherein said extruded one-piece reflector/shield is made of a material that reflects ultra-violet radiation (*column 1, line 57-61: quartz or aluminum reflector surfaces*).

Referring to claim 3: wherein said material includes aluminum (*column 1, line 57-61: quartz or aluminum reflector surfaces*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mandellos (US 5861633) in view of Abramson (US 5049725).

Mandellos discloses the claimed invention as discussed above except the system including at least two ultra-violet lamp assemblies removably mounted to a support.

Abramson discloses a radiant heating structure having a plurality of ultra-violet lamp assemblies (*FIG. 8-9, elements 51-52, 10*) removably mounted on a support (*FIG. 8, element 50*), wherein each assembly contains an ultra-violet lamp (*FIG. 3, element 16*) and a reflector (*FIG. 3, element 20*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the ventilation system disclosed by Mandellos such that including more than one ultra-violet lamp assemblies into the system as disclosed by Abramson. The motivation for doing so is to establish a “clam shell” type of heating arrangement in order to increase or evenly distribute the light energy emitted from the lamps to an enclosing area as taught by Abramson (*column 6, lines 21-26*).

3. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandellos (US 5861633) in view of Funomoto et al. (US 6108060).

Mandellos discloses the claimed invention as discussed above and also discloses wherein each longitudinal reflector/shield portion is made of a material that reflects ultra-violet radiation and wherein said material includes aluminum (*column 1, line 57-61: quartz or aluminum reflector surfaces*) (**Referring to claims 6-7**). However, Mandellos does not disclose wherein said extruded one-piece reflector/shield is generally L-shaped and wherein said ultra-violet lamp is also L-shaped (**Referring to claim 4**) and wherein said generally L-shaped extruded one-piece reflector/shield is made of two extruded longitudinal reflector/shield portions joined at 45 degrees (**Referring to claim 5**).

Funomoto et al. disclose a device having reflector/shield generally in L-shaped (*FIG. 4, elements 23a-b*) and a L-shaped lamp (*FIG. 4, element 22*) and wherein the generally L-shaped reflector/shield is made of two longitudinal reflector/shield portions joined at 45 degrees (*FIG. 4, elements 23a-b*) for providing the same intensity of light energy to an object (*column 4, lines 40-43*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the apparatus disclosed by Mandellos such that the reflector/shield and the lamp are in L-shaped as disclosed by Funomoto et al. The motivation of doing so is to provide the same intensity of light energy to an object as taught by Funomoto et al. (*column 4, lines 40-43*).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mandellos (US 5861633) in view of Lumpp (US 4596935).

Mandellos discloses the claimed invention as discussed above and an external clip to mount the ultra-violet lamp assembly to a support (*FIG. 15, elements 34, 34a-b*). However, Mandellos does not disclose wherein said extruded one-piece reflector/shield includes at least one internal clip to mount the ultra-violet lamp.

Lumpp discloses an ultraviolet radiation having a reflector structure (*FIG. 15, element 75-76*) containing a quartz tube (*FIG. 15, element 83*) and clips (*FIG. 17, element 84*) to mount the quartz tube thereto.

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the assembly disclosed by Mandellos such that including the internal clips into the reflector/shield to mount the ultraviolet lamps as disclosed by Lumpp. The motivation of doing so is obtain the advantages of the snap-action engagement of a resilient fastening clip as taught by Lumpp (*column 3, lines 2-6*).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mandellos (US 5861633) in view of Abramson (US 5049725), as applied to claim 9, and further in view of Lumpp (US 4596935).

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Mandellos, as modified, discloses the claimed invention as discussed above and an external clip to mount the ultra-violet lamp assembly to a support (FIG. 15, elements 34, 34a-b). However, Mandellos does not disclose wherein said extruded one-piece reflector/shield includes at least one internal clip to mount the ultra-violet lamp.

Lumpp discloses an ultraviolet radiation having a reflector structure (*FIG. 15, element 75-76*) containing a quartz tube (*FIG. 15, element 83*) and clips (*FIG. 17, element 84*) to mount the quartz tube thereto.

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the assembly disclosed by Mandellos, as modified, such that including the internal clips into the reflector/shield to mount the ultraviolet lamps as disclosed by Lumpp. The motivation of doing so is obtain the advantages of the snap-action engagement of a resilient fastening clip as taught by Lumpp (*column 3, lines 2-6*).

Response to Arguments

Applicant's arguments filed 07/22/2004 have been fully considered but they are not persuasive.

The applicants argued that while Mandellos and Abramson teach cooling **the structure**, applicants' invention is designed to avoid any cooling of **the structure**; thus, Mandellos and Abramson teach away from applicants' invention. The examiner does not agree with the argument. First of all, **the structure**, as understood, is an entire system that includes at least a housing, a reflector, and a lamp. Moreover, as defined in claims 1 and 9 that "*said outer surface of said reflector/shield deflects air away from said ultraviolet lamp to avoid cooling of said lamp*". As a result, even though applicants' invention is designed to avoid any cooling of **the**

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structure, the claims define “to avoid cooling” only “said lamp”. Thus the claim language does not support applicants’ argument. In addition, Mandellos’ reflector, as discussed above, prevents air from impinging the lamp (*FIG. 9 and 15*) in order not to adversely affect the light energy emitted (*column 6, lines 60-65*). In other words, Mandellos’ reflector drives the cooling air in a way that the airflow is designed not to pass the lamp, so the lamp is not cooled down by the airflow. Therefore, Mandellos’s disclosure reads on the claim language of the claimed system.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, STEPHEN D MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
November 19, 2004


HAI PHAM
PRIMARY EXAMINER